

IN THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1 to 20 (canceled).

Claim 21 (currently amended): A method for manufacturing a lightweight valve with a valve stem, a hollow valve cone and a valve disk closing the valve cone, ~~the valve stem being provided with a hollow space at an end facing the valve disk, the valve disk also having a force transmission element extending through the hollow valve cone into the stem hollow space,~~ the method comprising:

producing a first one-piece component forming the valve disk with the force transmission element by casting, forming and/or a powder metallurgy method;

producing a second one-piece component forming the valve stem and the valve cone, the second one-piece component having an inner wall defining a hollow space within the valve stem and the valve cone; and

joining the first and second components together by placing the force transmission element into the hollow space, bringing the inner wall and force transmission element into contact and connecting them the first and second components by at least one of a material, non-positive and[/or] positive connection.

Claim 22 (canceled).

Claim 23 (previously presented): The method as claimed in claim 21 wherein the force transmission element projects in a dome-like manner above a flat side of the valve disk facing the valve cone.

Claim 24 (previously presented): The method as claimed in claim 21 wherein the force transmission element is arranged centrally on the valve disk.

Claim 25 (previously presented): The method as claimed in claim 21 wherein the stem hollow space is provided with an axial stop against which the force transmission element is applied with an end face.

Claim 26 (previously presented): The method as claimed in claim 25 wherein the axial stop is a fully circular shoulder.

Claim 27 (currently amended): The method as claimed in claim 25 wherein the axial stop has a surface extending in a plane that is perpendicular at right angles or in a direction at right angles to a longitudinal central axis of the valve stem.

Claim 28 (previously presented): The method as claimed in claim 21 wherein the force transmission element has a constant cross section over an entire length.

Claim 29 (previously presented): The method as claimed in claim 21 wherein a free end of the force transmission element is inclined.

Claim 30 (previously presented): The method as claimed in claim 29 wherein the free end is tapered.

Claim 31 (currently amended): ~~The method as claimed in claim 21~~ A method for manufacturing a lightweight valve with a valve stem, a hollow valve cone and a valve disk closing the valve cone, the valve stem being provided with a hollow space at an end facing the valve disk, the valve disk also having a force transmission element extending through the hollow valve cone into the stem hollow space, the method comprising:

producing a first one-piece component forming the valve disk with the force transmission element by casting, forming and/or a powder metallurgy method;

producing a second component forming the valve stem and the valve cone; and

joining the first and second components together and connecting the first and second components by at least one of a material, non-positive and positive connection;

wherein the force transmission element has a bearing surface extending in a direction of a longitudinal central axis of the force transmission element and bears flat against a correspondingly designed countersurface of the stem hollow space after the first and second components are joined together, the bearing surface and the countersurface both having a conical shape.

Claim 32 (previously presented): The method as recited in claim 31 wherein the bearing surface also bears against an inner wall of the hollow valve cone.

Claim 33 (canceled).

Claim 34 (previously presented): The method as claimed in claim 31 wherein the countersurface is provided with at least one recess for forming a positive connection between force transmission element and valve stem.

Claim 35 (currently amended): The method as claimed in claim 34 wherein the recess is ~~fully circular~~ formed as an annular groove.

Claim 36 (previously presented): The method as claimed in claim 21 wherein the force transmission element has an end face with a blind hole.

Claim 37 (previously presented): The method as claimed in claim 21 wherein the valve cone is formed by a tulip-shaped widening of the end of the valve stem.

Claim 38 (previously presented): The method as claimed in claim 21 wherein a connection between the force transmission element and valve stem is designed so that forces acting on the valve disk during operation are introduced essentially completely via the force transmission element into the valve stem.

Claim 39 (previously presented): The method as claimed in claim 21 wherein the valve disk has a supporting portion against which the valve cone bears flat in sections in an end region of greater diameter.

Claim 40 (previously presented): The method as claimed in claim 21 wherein the valve stem is subsequently hardened in an end region facing away from the valve disk.

Claim 41 (previously presented): The method as claimed in claim 30 wherein the valve stem is inductively hardened.

Claim 42 (previously presented): The method as claimed in claim 21 wherein the valve cone and the valve disk are welded together.

Claim 43 (previously presented): The method as recited in claim 32 wherein the valve cone and the valve disk are welded together by beam welding or fusion welding.

Claim 44 (previously presented): The method as claimed in claim 21 wherein an outer surface of the lightweight valve is provided with a protective layer by plating.

Claim 45 (new): The method as recited in claim 21 wherein the valve disk has a recess defined therein that has an edge region including an edge step and the joining step includes engaging an end of greater diameter of the hollow valve cone in the recess of the valve disk and welding the valve cone in the recess.